CITY OF FLORENCE
2013 Drinking Water
Consumer Confidence Report
For Calendar Year 2012

www.florencecolorado.org

Public Water System ID# CO-0122500

Water Treatment Plant # 008

Esta es informacion importante. Si no la pueden leer, necesitan que laguien se la traduzca

We are pleased to present to you this year's water quality report. Our constant goal is to provide you with a safe and dependable supply of drinking water.

General Information About Drinking Water

All drinking water, including bottled water, may reasonable be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV-AIDS or other immune system disorders, some elderly, and infants can be particularly at risk of infections. These people should seek advice about drinking water from their health care providers. For more information about contaminants and potential health effects, or to receive a copy of the U.S. Center for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and microbiological contaminants call the EPA *Safe Drinking Water Hotline* at 1-800-426-4791.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

* **Microbial contaminants**, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operation, and wildlife.
* **Inorganic contaminants**, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
* **Pesticides and herbicides** that may come from a variety of sources, such as agriculture, urban stormwater runoff, and residential uses.
* Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and also may come from gas station, urban stormwater runoff, septic systems
* **Radioactive contaminants**, that can be naturally occurring or be the result of oil and gas production and mining activities

In order to ensure that tap water is safe to drink, the Colorado Department of Public Health and Environment prescribes regulation limiting the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Our Water Sources

Source	Water Type
Arkansas Rvr Minnequa Canal	Surface
Newlin Creek	Surface
Adobe Creek	Surface
Mineral Creek	Surface
Rockvale INFS and Well Raw Water	Surface

The Colorado Department of Public Health and Environment has provided us with a Source Water Assessment Report for our water supply, you may obtain a copy of the report by visiting www.cdphe.state.co.us/wq/swaphom.html or by contacting JIM ROBINSON at (719) 784-0617

Potential sources of contamination in our source water area come from:
Agricultural; Mining; Livestock; Oil Production; Wastewater Treatment ; Septic Tanks; Fertilizer; Pesticides; Herbicides; Storm water runoff; spills in rivers and streams
The Source Water Assessment Report provides a screening-level evaluation of potential contamination that **could** occur. It does not mean that the contamination **has or will** occur. We can use this information to evaluate the need to improve our current water treatment capabilities and prepare for future contamination threats. This can help us ensure that quality finished water is delivered to your homes. In addition, the

source water assessment results provide a starting point for developing a source water protection plan.

Please Contact JIM ROBINSON at (719) 784-0617 to learn more about what you can do to help protect your drinking water sources, any question about the Drinking Water Consumer Confidence Report, to learn more about our system, or to attend scheduled public meetings, We want you, our valued customers, to be informed about the services we provide and the quality water we deliver to you every day.

Terms and Abbreviations

The following definitions will help you understand the terms and abbreviations used in this report:

Parts per million (ppm) or Milligrams per liter (mg/L) - one part per million corresponds to one minute in two years or a single penny in $10,000.

Parts per billion (ppb) or Micrograms per liter (µ/L) - one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.

Parts pre trillion (ppt) or Nanograms per liter (nanograms/L) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in in $10,000,000,000,000.

Parts per quadrillion (ppq) or Picograms per liter (picograms/L) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in $10,000,000,000,000

Picocuries per liter (pCI/L) - picocuries per liter is a measure of the radioactivity in water.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water turbidity in excess of 5 NTU is just noticeable to the average person

Action Level (AL) - the concentration of a contaminant which if exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique (TT) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level Goal (MCLG) - The "Goal" is the level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Contaminant Level (MCL) - The "Maximum Allowed" is the highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant, below which there is no known or expected risk to health. MGDLGs do not reflect the benefits of the use of disinfectant to control microbial contaminants.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence for control of microbial contaminants.

Running Annual Average (RAA): An average of monitoring results for the previous 12 calendar months.

Gross Alpha, Including RA, Excluding RN & U: This is the gross alpha particle activity compliance value. It includes radium-226, but excludes radon 222 and uranium.

Detected Contaminants

CITY OF FLORENCE routinely monitors for contaminants in your drinking water according to Federal and State laws. The following tables(s) show all detections found in the period of January 1 to December 31, 2012 unless other wise noted. The State of Colorado requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. Therefore, some of our data, though representative, may be more than one year old, The "Range" column in the table(s) below will show a single value for those contaminants that were sampled only once. Violation, if any, are reported in the next section of this report.

Note: Only detected contaminants appear in this report. If no tables appear in this section, that means that CITY OF FLORENCE did not detect any contaminants in the last round of monitoring.

Organics and Inorganics	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
BARIUM	2012	0.05	0.05-0.055	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
FLUORIDE	2012	0.56	0.56-0.56	ppm	4.0	4.0	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
NITRATE	2012	0.09	0.09-0.09	ppm	10	10	Infants below the age of six months who drink water containing nitrate and nitrate-nitrite in excess of the MCL could become seriously ill and, if untreated may die. Symptoms include shortmess of breath and blue baby syndrome.

Turbidity	Sample Date	Level Found	TT Requirement	Likely Source of Contamination
Turbidity	Date: 7/31/2012	Highest single measurement 0.099	Maximum 1.0 NTU for any single measurement	Soil Runoff
	Month: July	Lowest monthly percentage of samples meeting TT standards for our technology 100%	In any month, at least 95% of samples must be less than 0.3 NTU	

Disinfection By-Products	Year	Average	Range	Samples	Units	MCL	MCLG	Typical Source
TOTAL HALOACETIC ACIDS (HAA5)	2012	14.2	10.8 -17.2	4	ppb	60	N/A	By-product of drinking water disinfection
TOTAL TRIHALOMETHANES (TTHM)	2011 2012	27.92	20.3 -38.1	4	ppb	80	N/A	By-product of drinking water disinfection

Lead and Copper	Collection Date	90TH Percentile		Unit	AL	Typical Source
COPPER	7/11/2011 to 7/12/2011	0.083		ppm	1.3	Corrosion of household plumbing systems; Erosion of natural deposits
LEAD	7/11/2011 to 7/12/2011	8		ppb	15	Corrosion of household plumbing systems; Erosion of natural deposits

	Date	Samples	Lowest - Highest	Unit	MCL	MCLG	Typical Source
COMBINED RADIUM (-226 & -228)	2011	0.1	0.1 - .01	pCi/L	5	0	Erosion of natural deposits

CONTAMINATE NAME	Year	Average of Individual Samples	Range of Individual Samples Lowest - Highest	Number of Samples	Units	Secondary Standards
SODIUM	2012	12.8	14 -14	1	ppm	N/A
TDS	2012	185	185- 185	1	ppm	500

Secondary standards are non-enforceable guidelines for contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, and order or color) in drinking water. EPA recommends these standards but does not require water systems to comply.

CONTAMINATE NAME	Year	Average	Range Low-High	Sample Size	Unit of Measure	TT Minimum Ratio	TT Violation	Typical Source
Total Organic Carbon Ratio (TOC)	2012	1.42	1.18 to 1.64	10	Ratio	1.00	No	Soil Runoff

Microorganisms	Raw Water	Finished Water
Cryptosporidium	ND	ND
Giardia	2	ND
Nondiatomaceous Algae	8,000,000	2,000
Diatoms	100,000,000	2,000
Plant Debris	ND	ND
Rotifers	40,000	2
Nematodes	ND	2
Pollen	10,000	ND
Ameba	10000	ND
Ciliates	90000	2
Colorless Flagellates	ND	ND
Crustaceans	ND	300
Other Arthropods	100000	10000
Others	ND	ND
Total:	108,250,002	14,306
Water Treatment Plant Evaluation	**Percent Reduction**	**Log Reduction**
Centrifugate Removal:	>99.96%	>3.4
Microorganism Removal	99.99%	4

Health Information About Water Quality

Infants and young children are typically more venerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush you tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800) 426-4791.

No Violations to Report

No Formal Enforcement Actions to Report